



Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200  
Fax 613 632-5246

**D4434-9**

**Job Sheet 188184**



Part No: D4434-9

Job Qty: 12 pcs

Part Name: Bracket



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 1/4/19

Job Tracking No:

Due Date: 1/14/19

Created By: Marie Lajeunesse

Type: SOLD *slh*

Description:

Note: DWG REV C SHEETS 14,15 IPP ReV:A 12.01.24 AS PER DWG REV.A DD VERF:EC IPP Rev:B 12.03.06 per REV.B DD verified by:EC IPP REV:C 13.04.01 AS PER D4434 REV.C DD VERF:JLM

Ship Via:

### Bill of Materials

### Job Routing

| Op No | Operation           | Qty    | Start Date | Due Date | Standard  |         | Workcenter/Supplier   |           | Sign-off          |
|-------|---------------------|--------|------------|----------|-----------|---------|-----------------------|-----------|-------------------|
|       |                     |        |            |          | Setup Hrs | Run Hrs | Workcenter / Supplier | Lead Time |                   |
| 100   | Waterjet - Flow - 1 | 12 pcs |            | 1/14/19  | 0.00      | 1.42    | Waterjet - Flow       |           | <i>DL19/03/08</i> |
| 110   | QC 2                | 12 pcs |            | 1/14/19  | 0.00      | 0.00    | QC 2 - 1              |           |                   |
|       |                     |        |            |          |           |         | QC 2 - 12             |           |                   |
|       |                     |        |            |          |           |         | QC 2 - 14             |           |                   |
|       |                     |        |            |          |           |         | QC 2 - 17             |           |                   |
|       |                     |        |            |          |           |         | QC 2 - 19             |           |                   |
|       |                     |        |            |          |           |         | QC 2 - 2              |           |                   |
|       |                     |        |            |          |           |         | QC 2 - 20             |           |                   |
|       |                     |        |            |          |           |         | QC 2 - 22             |           |                   |
|       |                     |        |            |          |           |         | QC 2 - 23             |           |                   |
|       |                     |        |            |          |           |         | QC 2 - 25             |           |                   |
|       |                     |        |            |          |           |         | QC 2 - 32             |           |                   |
|       |                     |        |            |          |           |         | QC 2 - 33             |           |                   |
|       |                     |        |            |          |           |         | QC 2 - 35             |           |                   |
|       |                     |        |            |          |           |         | QC 2 - 38             |           |                   |
|       |                     |        |            |          |           |         | QC 2 - 39             |           |                   |
|       |                     |        |            |          |           |         | QC 2 - 4              |           |                   |
|       |                     |        |            |          |           |         | QC 2 - 40             |           |                   |
|       |                     |        |            |          |           |         | QC 2 - 44             |           |                   |
|       |                     |        |            |          |           |         | QC 2 - 45             |           |                   |
|       |                     |        |            |          |           |         | QC 2 - 48             |           | <i>DL19/03/08</i> |
|       |                     |        |            |          |           |         | QC 2 - 49             |           |                   |
|       |                     |        |            |          |           |         | QC 2 - 50             |           |                   |
|       |                     |        |            |          |           |         | QC 2 - 51             |           |                   |
|       |                     |        |            |          |           |         | QC 2 - 52             |           |                   |
|       |                     |        |            |          |           |         | QC 2 - 54             |           |                   |
|       |                     |        |            |          |           |         | QC 2 - 56             |           |                   |
|       |                     |        |            |          |           |         | QC 2 - 57             |           |                   |
|       |                     |        |            |          |           |         | QC 2 - 62             |           |                   |
|       |                     |        |            |          |           |         | QC 2 - 63             |           |                   |
|       |                     |        |            |          |           |         | QC 2 - 8              |           |                   |

Entered: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. \_\_\_\_\_

Route update only ☐

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                        |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------|--|
| Job: _____<br><br>Part No. _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/> | <b>DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/><br/>           Machining <input type="checkbox"/><br/>           Large Fab <input type="checkbox"/> </div> <div>           Cross tube <input type="checkbox"/><br/>           Small Fab <input type="checkbox"/><br/>           Finishing <input type="checkbox"/> </div> <div>           Eng. (Non-AW) <input type="checkbox"/><br/>           Prod. Eng. Coord. <input type="checkbox"/><br/>           Rec/Store/Packaging <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/><br/>           Water Jet <input type="checkbox"/><br/>           Supplier <input type="checkbox"/><br/>           Quality <input type="checkbox"/> </div> </div>                                                                                                                                                                                                                                                                      |  |                        |  |
| Date :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Sequence #:                                                                                                                       | QTY Affected :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  | MRB (QSI042)           |  |
| Description Work Order Deviation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                   | Disposition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  | Completed By           |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  | Lead hand / Supervisor |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                        |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  | QC / QA Coordinator    |  |
| <b>Root Cause</b><br><br><div style="display: flex;"> <div style="flex: 1;">           Operator <input type="checkbox"/><br/>           Manufacturing Process <input type="checkbox"/><br/>           Equip/Tooling <input type="checkbox"/><br/>           Handling/Preservation <input type="checkbox"/><br/>           Material <input type="checkbox"/><br/>           Product Improvement <input type="checkbox"/><br/>           Process Improvement <input type="checkbox"/><br/>           Human Factors <input type="checkbox"/> </div> <div style="flex: 1;"> <input type="checkbox"/> Pressure/Forced<br/> <input type="checkbox"/> Bending<br/> <input type="checkbox"/> Crushing<br/> <input type="checkbox"/> Cracks<br/> <input type="checkbox"/> Crimp/Kink/Ripple/Wave/Twist<br/> <input type="checkbox"/> Marks/Chatter<br/> <input type="checkbox"/> Mislabeled         </div> </div> |                                                                                                                                   | <b>FAULT CATEGORY</b><br><br><div style="display: flex;"> <div style="flex: 1;"> <input type="checkbox"/> Contamination<br/> <input type="checkbox"/> Misaligned/off center<br/> <input type="checkbox"/> BOM/Route<br/> <input type="checkbox"/> Broken/Damage/Defect<br/> <input type="checkbox"/> Incomplete/Unclear Instructions<br/> <input type="checkbox"/> Drill Holes<br/> <input type="checkbox"/> Fit/Function         </div> <div style="flex: 1;"> <input type="checkbox"/> Power Loss/Surge<br/> <input type="checkbox"/> Folio/Program<br/> <input type="checkbox"/> Grain Direction<br/> <input type="checkbox"/> Weld<br/> <input type="checkbox"/> Wrong Stock Pulled<br/> <input type="checkbox"/> Out of Sequence<br/> <input type="checkbox"/> Off-set/Set-up         </div> <div style="flex: 1;"> <input type="checkbox"/> Positioned Wrong<br/> <input type="checkbox"/> Outside Tolerance<br/> <input type="checkbox"/> Drawing<br/> <input type="checkbox"/> Finish<br/> <input type="checkbox"/> Part Lost/Missing<br/> <input type="checkbox"/> Misread         </div> </div> |  |                        |  |
| Other/Details:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                        |  |



|     |                               |           |         |           |                             |  |  |
|-----|-------------------------------|-----------|---------|-----------|-----------------------------|--|--|
| 120 | QC 8                          | 12<br>pcs | 1/14/19 | 0.00 0.00 | QC 8 - 12                   |  |  |
|     |                               |           |         |           | QC 8 - 14                   |  |  |
|     |                               |           |         |           | QC 8 - 17                   |  |  |
|     |                               |           |         |           | QC 8 - 20                   |  |  |
|     |                               |           |         |           | QC 8 - 25                   |  |  |
|     |                               |           |         |           | QC 8 - 3                    |  |  |
|     |                               |           |         |           | QC 8 - 32                   |  |  |
|     |                               |           |         |           | QC 8 - 33                   |  |  |
|     |                               |           |         |           | QC 8 - 35                   |  |  |
|     |                               |           |         |           | QC 8 - 38                   |  |  |
|     |                               |           |         |           | QC 8 - 39                   |  |  |
|     |                               |           |         |           | QC 8 - 4                    |  |  |
|     |                               |           |         |           | QC 8 - 44                   |  |  |
|     |                               |           |         |           | QC 8 - 45                   |  |  |
|     |                               |           |         |           | QC 8 - 49                   |  |  |
|     |                               |           |         |           | QC 8 - 58                   |  |  |
|     |                               |           |         |           | QC 8 - 8                    |  |  |
|     |                               |           |         |           | QC 8 - 9                    |  |  |
|     |                               |           |         |           | QC 8 - 68                   |  |  |
|     |                               |           |         |           | QC 8 - 67                   |  |  |
|     |                               |           |         |           | QC 8 - 1 (A)                |  |  |
| 130 | Small Fab - 2 - B4B           | 12<br>pcs | 1/14/19 | 0.00 0.76 | Small Fab - 1 - B4B         |  |  |
|     |                               |           |         |           | Small Fab - 2 - B4B         |  |  |
|     |                               |           |         |           | Small Fab - 3 - B4B         |  |  |
|     |                               |           |         |           | Small Fab - 4 - B4B         |  |  |
|     |                               |           |         |           | Small Fab - 5 - B4B         |  |  |
|     |                               |           |         |           | Small Fab - 6 - B4B         |  |  |
|     |                               |           |         |           | Small Fab - 7 - B4B         |  |  |
| 140 | Small Fab - Brake NC - B4B    | 12<br>pcs | 1/14/19 | 0.00 0.73 | Small Fab - Brake - 1 - B4B |  |  |
|     |                               |           |         |           | Small Fab - Brake - 2 - B4B |  |  |
|     |                               |           |         |           | Small Fab - Brake - 3 - B4B |  |  |
| 150 | QC 5                          | 12<br>pcs | 1/14/19 | 0.00 0.00 | QC 5 - 10                   |  |  |
|     |                               |           |         |           | QC 5 - 12                   |  |  |
|     |                               |           |         |           | QC 5 - 17                   |  |  |
|     |                               |           |         |           | QC 5 - 18                   |  |  |
|     |                               |           |         |           | QC 5 - 19                   |  |  |
|     |                               |           |         |           | QC 5 - 22                   |  |  |
|     |                               |           |         |           | QC 5 - 24                   |  |  |
|     |                               |           |         |           | QC 5 - 3                    |  |  |
|     |                               |           |         |           | QC 5 - 38                   |  |  |
|     |                               |           |         |           | QC 5 - 42                   |  |  |
|     |                               |           |         |           | QC 5 - 43                   |  |  |
|     |                               |           |         |           | QC 5 - 49                   |  |  |
|     |                               |           |         |           | QC 5 - 51                   |  |  |
|     |                               |           |         |           | QC 5 - 58                   |  |  |
|     |                               |           |         |           | QC 5 - 68                   |  |  |
|     |                               |           |         |           | QC 5 - 9                    |  |  |
|     |                               |           |         |           | QC 5 - 50                   |  |  |
|     |                               |           |         |           | QC 5 - 30                   |  |  |
| 160 | Handfinish - 1-1 Chemical-B4B | 12<br>pcs | 1/14/19 | 0.00 0.57 | Handfinish - 1 - 1 - B4B    |  |  |
|     |                               |           |         |           | Handfinish - 1 - 2 - B4B    |  |  |
|     |                               |           |         |           | Handfinish - 1 - 3 - B4B    |  |  |
|     |                               |           |         |           | Handfinish - 1 - 4 - B4B    |  |  |
|     |                               |           |         |           | Handfinish - 1 - 5 - B4B    |  |  |
|     |                               |           |         |           | Handfinish - 1 - 6 - B4B    |  |  |
|     |                               |           |         |           | Handfinish - 1 - 7 - B4B    |  |  |
|     |                               |           |         |           | Handfinish - 1 - 8 - B4B    |  |  |

Entered: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. \_\_\_\_\_

Route update only ☐

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|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------|--|
| Job: _____<br><br>Part No. _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/> | <b>DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/><br/>           Machining <input type="checkbox"/><br/>           Large Fab <input type="checkbox"/> </div> <div>           Cross tube <input type="checkbox"/><br/>           Small Fab <input type="checkbox"/><br/>           Finishing <input type="checkbox"/> </div> <div>           Eng. (Non-AW) <input type="checkbox"/><br/>           Prod. Eng. Coord. <input type="checkbox"/><br/>           Rec/Store/Packaging <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/><br/>           Water Jet <input type="checkbox"/><br/>           Supplier <input type="checkbox"/><br/>           Quality <input type="checkbox"/> </div> </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |                        |  |
| Date :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Sequence #:                                                                                                                       | QTY Affected :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  | MRB (QSI042)           |  |
| Description Work Order Deviation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                   | Disposition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  | Completed By           |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  | Lead hand / Supervisor |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                        |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  | QC / QA Coordinator    |  |
| <b>Root Cause</b><br><br><div style="display: flex; flex-direction: column;"> <div>Operator <input type="checkbox"/></div> <div>Manufacturing Process <input type="checkbox"/></div> <div>Equip/Tooling <input type="checkbox"/></div> <div>Handling/Preservation <input type="checkbox"/></div> <div>Material <input type="checkbox"/></div> <div>Product Improvement <input type="checkbox"/></div> <div>Process Improvement <input type="checkbox"/></div> <div>Human Factors <input type="checkbox"/></div> </div> |                                                                                                                                   | <b>FAULT CATEGORY</b><br><br><div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <input type="checkbox"/> Pressure/Forced<br/> <input type="checkbox"/> Bending<br/> <input type="checkbox"/> Crushing<br/> <input type="checkbox"/> Cracks<br/> <input type="checkbox"/> Crimp/Kink/Ripple/Wave/Twist<br/> <input type="checkbox"/> Marks/Chatter<br/> <input type="checkbox"/> Mislabeled         </div> <div style="width: 50%;"> <input type="checkbox"/> Contamination<br/> <input type="checkbox"/> Misaligned/off center<br/> <input type="checkbox"/> BOM/Route<br/> <input type="checkbox"/> Broken/Damage/Defect<br/> <input type="checkbox"/> Incomplete/Unclear Instructions<br/> <input type="checkbox"/> Drill Holes<br/> <input type="checkbox"/> Fit/Function         </div> <div style="width: 50%;"> <input type="checkbox"/> Power Loss/Surge<br/> <input type="checkbox"/> Folio/Program<br/> <input type="checkbox"/> Grain Direction<br/> <input type="checkbox"/> Weld<br/> <input type="checkbox"/> Wrong Stock Pulled<br/> <input type="checkbox"/> Out of Sequence<br/> <input type="checkbox"/> Off-set/Set-up         </div> <div style="width: 50%;"> <input type="checkbox"/> Positioned Wrong<br/> <input type="checkbox"/> Outside Tolerance<br/> <input type="checkbox"/> Drawing<br/> <input type="checkbox"/> Finish<br/> <input type="checkbox"/> Part Lost/Missing<br/> <input type="checkbox"/> Misread         </div> </div> |  |                        |  |
| Other/Details:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                        |  |



|                                 |           |         |           |                           |              |
|---------------------------------|-----------|---------|-----------|---------------------------|--------------|
|                                 |           |         |           | Handfinish - 1 - 9 - B4B  |              |
|                                 |           |         |           | Handfinish - 1 - 10 - B4B | D.R 19/09/01 |
|                                 |           |         |           | Handfinish - 1 - 11 - B4B |              |
|                                 |           |         |           | Handfinish - 1 - 12 - B4B |              |
|                                 |           |         |           | Handfinish - 1 - 13 - B4B |              |
|                                 |           |         |           | Handfinish - 1 - 14 - B4B |              |
|                                 |           |         |           | Handfinish - 1 - 15 - B4B |              |
|                                 |           |         |           | Handfinish - 1 - 16 - B4B |              |
|                                 |           |         |           | Handfinish - 1 - 17 - B4B |              |
|                                 |           |         |           | Handfinish - 1 - 18 - B4B |              |
|                                 |           |         |           | Handfinish - 1 - 19 - B4B |              |
|                                 |           |         |           | Handfinish - 1 - 20 - B4B |              |
|                                 |           |         |           | Handfinish - 1 - 21 - B4B |              |
|                                 |           |         |           | Handfinish - 1 - 22 - B4B |              |
| 170 QC 7                        | 12<br>pcs | 1/14/19 | 0.00 0.00 | QC 7 - 10                 |              |
|                                 |           |         |           | QC 7 - 13                 |              |
|                                 |           |         |           | QC 7 - 14                 |              |
|                                 |           |         |           | QC 7 - 15                 |              |
|                                 |           |         |           | QC 7 - 17                 |              |
|                                 |           |         |           | QC 7 - 18                 |              |
|                                 |           |         |           | QC 7 - 19                 |              |
|                                 |           |         |           | QC 7 - 2                  |              |
|                                 |           |         |           | QC 7 - 28                 |              |
|                                 |           |         |           | QC 7 - 3                  |              |
|                                 |           |         |           | QC 7 - 30                 |              |
|                                 |           |         |           | QC 7 - 34                 |              |
|                                 |           |         |           | QC 7 - 36                 |              |
|                                 |           |         |           | QC 7 - 37                 |              |
|                                 |           |         |           | QC 7 - 38                 |              |
|                                 |           |         |           | QC 7 - 41                 |              |
|                                 |           |         |           | QC 7 - 47                 |              |
|                                 |           |         |           | QC 7 - 48                 |              |
|                                 |           |         |           | QC 7 - 51                 |              |
|                                 |           |         |           | QC 7 - 58                 |              |
|                                 |           |         |           | QC 7 - 59                 |              |
|                                 |           |         |           | QC 7 - 6                  |              |
|                                 |           |         |           | QC 7 - 60                 |              |
|                                 |           |         |           | QC 7 - 9                  |              |
|                                 |           |         |           | QC 7 - 68                 |              |
|                                 |           |         |           | QC 7 - 50                 |              |
|                                 |           |         |           | QC 7 - 67                 |              |
| 180 Packaging 3-1 - Stock - B4B | 12<br>pcs | 1/14/19 | 0.00 0.00 | Packaging 3 - 1 - B4B     |              |
|                                 |           |         |           | Packaging 3 - 2 - B4B     |              |
|                                 |           |         |           | Packaging 3 - 3 - B4B     |              |
|                                 |           |         |           | Packaging 3 - 4 - B4B     |              |
|                                 |           |         |           | Packaging 3 - 5 - B4B     |              |
|                                 |           |         |           | Packaging 3 - 6 - B4B     |              |
|                                 |           |         |           | Packaging 3 - 7 - B4B     |              |
|                                 |           |         |           | Packaging 3 - 8 - B4B     |              |
|                                 |           |         |           | Packaging 3 - 9 - B4B     |              |
|                                 |           |         |           | Packaging 3 - 10 - B4B    |              |
|                                 |           |         |           | Packaging 3 - 11 - B4B    |              |
|                                 |           |         |           | Packaging 3 - 12 - B4B    |              |
|                                 |           |         |           | Packaging 3 - 13 - B4B    |              |
|                                 |           |         |           | Packaging 3 - 14 - B4B    |              |
|                                 |           |         |           | Packaging 3 - 15 - B4B    |              |
|                                 |           |         |           | Packaging 3 - 16 - B4B    |              |
|                                 |           |         |           | Packaging 3 - 17 - B4B    |              |
|                                 |           |         |           | Packaging 3 - 18 - B4B    |              |
|                                 |           |         |           | Packaging 3 - 19 - B4B    |              |

Entered: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. \_\_\_\_\_

Route update only ☐

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| Job: _____<br><br>Part No. _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/> | <b>DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/><br/>           Machining <input type="checkbox"/><br/>           Large Fab <input type="checkbox"/> </div> <div>           Cross tube <input type="checkbox"/><br/>           Small Fab <input type="checkbox"/><br/>           Finishing <input type="checkbox"/> </div> <div>           Eng. (Non-AW) <input type="checkbox"/><br/>           Prod. Eng. Coord. <input type="checkbox"/><br/>           Rec/Store/Packaging <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/><br/>           Water Jet <input type="checkbox"/><br/>           Supplier <input type="checkbox"/><br/>           Quality <input type="checkbox"/> </div> </div>                                                                                                                                                                                                                                                                      |  |                        |  |
| Date :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Sequence #:                                                                                                                       | QTY Affected :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  | MRB (QSI042)           |  |
| Description Work Order Deviation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                   | Disposition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  | Completed By           |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  | Lead hand / Supervisor |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                        |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  | QC / QA Coordinator    |  |
| <b>Root Cause</b><br><br><div style="display: flex;"> <div style="flex: 1;">           Operator <input type="checkbox"/><br/>           Manufacturing Process <input type="checkbox"/><br/>           Equip/Tooling <input type="checkbox"/><br/>           Handling/Presservation <input type="checkbox"/><br/>           Material <input type="checkbox"/><br/>           Product Improvement <input type="checkbox"/><br/>           Process Improvement <input type="checkbox"/><br/>           Human Factors <input type="checkbox"/> </div> <div style="flex: 1;"> <input type="checkbox"/> Pressure/Forced<br/> <input type="checkbox"/> Bending<br/> <input type="checkbox"/> Crushing<br/> <input type="checkbox"/> Cracks<br/> <input type="checkbox"/> Crimp/Kink/Ripple/Wave/Twist<br/> <input type="checkbox"/> Marks/Chatter<br/> <input type="checkbox"/> Mislabeled         </div> </div> |                                                                                                                                   | <b>FAULT CATEGORY</b><br><br><div style="display: flex;"> <div style="flex: 1;"> <input type="checkbox"/> Contamination<br/> <input type="checkbox"/> Misaligned/off center<br/> <input type="checkbox"/> BOM/Route<br/> <input type="checkbox"/> Broken/Damage/Defect<br/> <input type="checkbox"/> Incomplete/Unclear Instructions<br/> <input type="checkbox"/> Drill Holes<br/> <input type="checkbox"/> Fit/Function         </div> <div style="flex: 1;"> <input type="checkbox"/> Power Loss/Surge<br/> <input type="checkbox"/> Folio/Program<br/> <input type="checkbox"/> Grain Direction<br/> <input type="checkbox"/> Weld<br/> <input type="checkbox"/> Wrong Stock Pulled<br/> <input type="checkbox"/> Out of Sequence<br/> <input type="checkbox"/> Off-set/Set-up         </div> <div style="flex: 1;"> <input type="checkbox"/> Positioned Wrong<br/> <input type="checkbox"/> Outside Tolerance<br/> <input type="checkbox"/> Drawing<br/> <input type="checkbox"/> Finish<br/> <input type="checkbox"/> Part Lost/Missing<br/> <input type="checkbox"/> Misread         </div> </div> |  |                        |  |
| Other/Details:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                        |  |



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|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                    |                         | Packaging 3 - 20 - B4B |              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                    |                         | Packaging 3 - 21 - B4B |              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                    |                         | Packaging 3 - 22 - B4B |              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                    |                         | Packaging 3 - 23 - B4B |              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                    |                         | Packaging 3 - 24 - B4B |              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                    |                         | Packaging 3 - 25 - B4B |              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                    |                         | Packaging 3 - 26 - B4B |              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                    |                         | Packaging 3 - 27 - B4B | ST-614       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                    |                         | Packaging 3 - 28 - B4B | APR 02 2019  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                    |                         | Packaging 3 - 29 - B4B |              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                    |                         | Packaging 3 - 30 - B4B |              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                    |                         | Packaging 3 - 31 - B4B |              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                    |                         | Packaging 3 - 32 - B4B |              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                    |                         | Packaging 3 - 33 - B4B |              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                    |                         | Packaging 3 - 34 - B4B |              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                    |                         | Packaging 3 - 35 - B4B |              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                    |                         | Packaging 3 - 36 - B4B |              |
| 190 QC 21 - SA                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 12<br>pcs             | 1/14/19            | 0.00 0.00               | QC 21 - SA - 21        | DATE 21 9-88 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |                    |                         | QC 21 - SA - 70        | APR 02 2019  |
| <p>Part Op 110 - QC2- Inspect parts off machine FAI/FAIB</p> <p>Descriptions: 120 - QC8- Inspect parts - second check</p> <p>130 - Small Fab</p> <p>140 - Bend/Assemble as per dwg</p> <p>150 - QC5- Inspect part completeness to step on W/O</p> <p>160 - Chemical Conversion Coat per QSI005 4.1</p> <p>170 - QC7-Inspect Chemical Conversion Coat</p> <p>180 - Identify as per dwg &amp; Stock Location: _____</p> <p>190 - QC21- Final Inspection - Work Order Release</p> |                       |                    |                         |                        |              |
| <b>Job BOM</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                       |                    |                         |                        |              |
| <b>Part / Item</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>Component Name</b> | <b>Quantity</b>    | <b>Operation</b>        | <b>Container</b>       |              |
| M6061T6S.040                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 6061-T6 .040 Sheet    | 2.8800 sf (.24 ea) | 100-Waterjet - Flow - 1 | S152150                |              |
| <b>Job Allocations</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                       |                    |                         |                        |              |
| <b>Operation</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>Component Part</b> | <b>Required</b>    | <b>Inventory</b>        | <b>Allocated</b>       |              |
| 100-Waterjet - Flow - 1                                                                                                                                                                                                                                                                                                                                                                                                                                                        | M6061T6S.040          | 3                  | 11                      | 0                      |              |
| <b>Part Specifications</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                       |                    |                         |                        |              |
| Specifications could not be found.                                                                                                                                                                                                                                                                                                                                                                                                                                             |                       |                    |                         |                        |              |

Entered: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. \_\_\_\_\_

Route update only ☐

|                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |  |                        |
|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|------------------------|
| Job: _____<br><br>Part No. _____ | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/><br/>           Machining <input type="checkbox"/><br/>           Large Fab <input type="checkbox"/> </div> <div>           Cross tube <input type="checkbox"/><br/>           Small Fab <input type="checkbox"/><br/>           Finishing <input type="checkbox"/> </div> <div>           Eng. (Non-AW) <input type="checkbox"/><br/>           Prod. Eng. Coord. <input type="checkbox"/><br/>           Rec/Store/Packaging <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/><br/>           Water Jet <input type="checkbox"/><br/>           Supplier <input type="checkbox"/><br/>           Quality <input type="checkbox"/> </div> </div> |  |  |                        |
| Date : _____                     | <div style="position: relative; height: 200px;"> <div style="position: absolute; top: 0; right: 0; text-align: right;"> <b>DART</b><br/>AEROSPACE<br/>           Dart Aerospace Ltd.<br/>           1270 Aberdeen Street<br/>           Markham, ON R3A 1K7<br/>           CANADA<br/>           TEL.: 1 813 632-8200<br/>           Email: sales@dartaero.com<br/>           www.dartaerospace.com         </div> <div style="position: absolute; left: 0; top: 50%; transform: translateY(-50%); white-space: nowrap;">           Part: D4434-9<br/>           Job No: 188184<br/>           Serial No/Batch: S160872<br/>           Revision:<br/>           Inspector:<br/>           Exp Date:<br/>           Instructions: Various STC's<br/>           Date: 03/09/19         </div> </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |  | MRB (QSI042)           |
| Description                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |  | Completed By           |
|                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |  | Lead hand / Supervisor |
| Root Cause                       | <div style="display: flex; justify-content: space-between;"> <div>           Operator <input type="checkbox"/><br/>           Manufacturing Process <input type="checkbox"/><br/>           Equip/Tooling <input type="checkbox"/><br/>           Handling/Presservation <input type="checkbox"/><br/>           Material <input type="checkbox"/><br/>           Product Improvement <input type="checkbox"/><br/>           Process Improvement <input type="checkbox"/><br/>           Human Factors <input type="checkbox"/> </div> <div>           Cracks <input type="checkbox"/><br/>           Crimp/Kink/Ripple/Wave/Twist <input type="checkbox"/><br/>           Marks/Chatter <input type="checkbox"/><br/>           Mislabeled <input type="checkbox"/> </div> <div>           Incomplete/Unclear Instructions <input type="checkbox"/><br/>           Drill Holes <input type="checkbox"/><br/>           Fit/Function <input type="checkbox"/> </div> <div>           Wrong Stock Pulled <input type="checkbox"/><br/>           Out of Sequence <input type="checkbox"/><br/>           Off-set/Set-up <input type="checkbox"/> </div> <div>           Positioned Wrong <input type="checkbox"/><br/>           Outside Tolerance <input type="checkbox"/><br/>           Drawing <input type="checkbox"/><br/>           Finish <input type="checkbox"/><br/>           Part Lost/Missing <input type="checkbox"/><br/>           Misread <input type="checkbox"/> </div> </div> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |  |                        |
|                                  | Other/Details: _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |  |                        |



